

REMARKS

Please reconsider this application in view of the above amendments and the following remarks. Applicant thanks the Examiner for carefully reconsidering this application.

Disposition of Claims

Claims 1, 2, 5-7, 10, and 13 are pending in this application. Claim 1 is independent. The remaining claims depend, directly or indirectly, from claim 1.

Amendments to the Claims

Claims 1, 2, 6, 10, and 13 have been amended in this reply, and claims 3, 4, 8, 9, 11, and 12 have been cancelled. Support for the amendments to claim 1 may be found, at least, within Figures 2-5 of the originally filed application. Thus, no new matter has been added by way of these amendments.

Rejection of Claims Under 35 U.S.C. § 103**Rejection of Claims 1-4, 6, and 10-11**

Claims 1-4, 6, and 10-11 stand rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent Publication No. 2002/0037195 (“Ajiki”) in view of U.S. Patent No. 4,799,819 (“Swoboda”). Independent claim 1 has been amended in this reply. To the extent that this rejection applies to independent claim 1, as amended, this rejection is respectfully traversed.

Claim 1 recites, *inter alia*, a fixing apparatus having a pair of structural members, each with an engagement groove formed in at least one side surface thereof, the engagement grooves being provided at two side wall surfaces thereof with two protrusions protruding towards each other. A first engagement member includes two engagement parts capable of

engaging the respective protrusions formed on the respective one side wall surface of the engagement grooves of the two engagement parts. A second engagement member is arranged in the widthwise direction of the engagement grooves in such a manner as to be opposite to the first engagement member, and also includes two engagement parts capable of engaging the respective protrusions formed on the respective other side wall surface of the engagement grooves of the two engagement parts. The second engagement member is formed as a separate component with respect to the first engagement member. Further, a coiled spring is disposed between the middle parts of the first engagement member and the second engagement member.

Ajiki shows in Figures 1 and 2A-C a device for coupling/fastening a pair of square bars 1, 2 that are arranged squarely in abutment relative to each other. The square bars 1, 2 are provided with anti-release grooves 1b, 2b arranged to abut each other, in which first and second engagement sections 3a, 3b of the inner joint 3 are loosely fit into the anti-release grooves 1b, 2b. An outer joint 4 having a rear plate section 4a and a pair of right-angled triangular lateral walls 4b, 4c are brought into engagement with the inner joint 3 and are fastened together with a bolt 5.

Swoboda shows in Figure 23 a connector 1 having a casing 23 connected to a hollow profiled member 5. The profiled member 5 includes flanges 3, in which retaining members 6 with end portions 8 may be disposed within the profiled member 5 and engage the flanges 3. The engagement of the retaining members 6 with the flanges 3 connects the casing 23 and profiled member 5 to each other. Further, a shaft 18 is disposed within the casing 23, in which the shaft 18 includes a coiled spring 39 disposed at one end thereof. The shaft 18 is axially movable against the opposition of the coiled spring 39, in which the shaft 18 may then disengage from the casing 23 to disconnect the connector 1 from the profiled member 5.

Applicant, however, respectfully asserts that Ajiki and Swoboda, whether considered separately or in combination, fail to teach or suggest all of the elements of amended independent claim 1. Specifically, claim 1 requires that the second engagement member be formed as a separate component with respect to the first engagement member. For example, as shown in Figures 2-5, the fixing device includes first and second engagement members 4, 4' disposed opposite from each other and engaged with the engagement groove A1 of a structural member A. By having the first and second engagement members 4, 4' formed separate from each other, the first and second engagement members 4, 4' may then be movable with respect to each other. As such, as the screw 8 is tightened, the engagement ridges 4e of the first and second engagement members 4, 4' disposed opposite each other move to abut the protrusions A2, A3 of the engagement groove A1, thereby fixing the abutment member 2 to the structural member A.

Ajiki and Swoboda, on the other hand, neither show, nor suggest, having a first engagement member and a second engagement member formed as separate components from each other. In contrast, the inner joint 3 of Ajiki, which most closely resembles the first and second engagement members of the present application, is formed as a single structure in Figures 2A-C. This structure for the inner joint 3 of Ajiki thereby prevents any movement of the engagement sections 3a, 3b with respect to each other when fixing the inner joint 3 to the first and second square bars 1,2.

Further, in addition to the first and second engagement members formed as separate components from each other, Applicant respectfully asserts that Ajiki and Swoboda fail to teach or suggest having a coiled spring disposed between the middle parts of the first and second engagement members, as amended claim 1 requires. As shown in Figures 2-5, a coiled

spring 7 is disposed between the middle portions of the opposing first and second engagement members 4, 4', in which the coiled spring 7 biases the first and second engagement members 4, 4' away from each other. This enables the engagement ridges 4e of the engagement members 4, 4' to stay engaged with the protrusions A2, A3 of the groove A1. Ajiki and Swoboda, however, neither show, nor suggest, having a coiled spring disposed between the middle parts of the first and second engagement member. Rather, in Swoboda, the coiled spring 39 is disposed at the end of the shaft 18 to bias the shaft 18 into engagement with the casing 23. The coiled spring 39 in Swoboda, therefore, is only used and opposed against when disconnecting the connector 1 from the profiled member 5, whereas the coiled spring 7 in the present invention is used to maintain engagement between and fix the abutment member 2 to the structural member A.

In view of the above, because Ajiki and Swoboda, whether considered separately or in combination, do not disclose or suggest 1) that the second engagement member be formed as a separate component with respect to the first engagement member, and 2) that a coiled spring be disposed between the middle parts of the first and second engagement members, both as amended claim 1 requires, claim 1 is patentable over Ajiki and Swoboda. Dependent claims 2, 5-7, 10, and 13 are patentable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

Dependent claims 5, 7-9, and 13

Claims 5, 7-9, and 13 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Ajiki in view of Swoboda, and further in view of U.S. Patent No. 4,168,922 ("Wortallo"). Dependent claims 8 and 9 have been cancelled by way of this reply. As such, this rejection is now moot with respect to the claims. Further, independent claim 1, from which claims 5, 7, and

13 depend, has been amended in this reply. To the extent that this rejection applies to independent claim 1, as amended, this rejection is respectfully traversed.

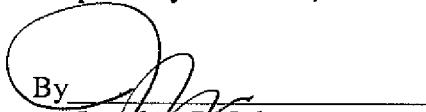
As discussed above, Ajiki and Swoboda, whether considered separately or in combination, fail to show or suggest the invention as recited within claim 1, as amended. Worrallo, which the Examiner only asserts as showing tabs disposed upon the ends of the abutment member to modify Ajiki, does not provide that which Ajiki and Swoboda lack. Specifically, as with Ajiki and Swoboda, Worrallo also fails to show or suggest 1) that the second engagement member be formed as a separate component with respect to the first engagement member; and 2) that a coiled spring be disposed between the middle parts of the first and second engagement members. In view of above, Ajiki, Swoboda, and Worrallo, whether considered separately or in combination, fail to show or suggest the invention as recited in claim 1. Thus, claim 1 is patentable over any proposed combination of Ajiki, Swoboda, and Worrallo. Claims 5, 7, and 13, which depend from claim 1, are allowable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

Conclusion

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 12088/047001).

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Respectfully submitted,

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